

AMENDMENT TO THE CLAIMS

Please replace the claims as filed with the claims set forth below. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A fibre-reinforced pressure vessel comprising one of a rigid gas- or fluid-tight body overwound with fibre filaments, the fiber-reinforced pressure vessel having whereby no matrix material is used to bind preventing movement of the fibre filaments and the fibre filaments can move freely with respect to one another and the fibre filaments are being wound such that when the pressure vessel is under internal pressure, the fibre filaments are loaded exactly in their longitudinal direction and the rigid body does not substantially contribute to the absorption of mechanical stresses resulting from the internal pressure.

2. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1 further comprising whereby the pressure vessel havinghas an isotenoid shape.

3. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1 further comprising whereby the pressure vessel havinghas a cylindrical shape.

4. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1, further comprising whereby the pressure vessel beingis provided with a coating.

5. (Original) The fibre-reinforced pressure vessel according to claim 4, whereby the coating comprises synthetic rubber.

6. (Currently Amended) The fibre-reinforced pressure vessel according claim 1 further comprising whereby the rigid body beingis made of high-density polyethene (HDPE) and the fibre filaments are carbon fibres.

7. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1

~~further comprising whereby the rigid body being~~is made of high-density polyethene (HDPE) and the fibre filaments ~~being~~are glass fibres.

8. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1 ~~further comprising whereby the pressure vessel being configured to~~can withstand a working pressure in the range of 0-5 bar.

9. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1 ~~further comprising whereby the pressure vessel being configured to~~can withstand a working pressure in the range of 0-10 bar.

10. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1 ~~further comprising whereby the pressure vessel being configured to~~can withstand a working pressure in the range of 0-35 bar.

11. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1 ~~further comprising whereby the pressure vessel being configured to~~can withstand a working pressure in the range of 0-100 bar.

12. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1 ~~further comprising whereby the pressure vessel being configured to~~can withstand a working pressure in the range of 0-300 bar.

13. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1 ~~further comprising whereby the pressure vessel being configured to~~can withstand a working pressure in the range of 0-600 bar.

14. (Currently Amended) The fibre-reinforced pressure vessel according to claim 8, ~~further comprising the pressure vessel being~~ suitable for use as a gas flask for propane or butane or a mixture thereof for household uses.

15. (Currently Amended) The fibre-reinforced pressure vessel according to claim 11 further comprising the pressure vessel being suitable as a fuel tank, in particular for LPG, for use in motor vehicles.

16. (Currently Amended) The fibre-reinforced pressure vessel according to claim 12 further comprising the pressure vessel being suitable as a fuel tank for CNG or compressed air.

17. (Currently Amended) The fibre-reinforced pressure vessel according to claim 13 further comprising the pressure vessel being suitable for use as a cryogenic gas system in space technology applications.

18. (Currently Amended) The fibre-reinforced pressure vessel according to claim 1 further comprising whereby the pressure vessel being is provided with an appendage, for example at least one of a closure member or a pressure valve.

19. (Currently Amended) A method of manufacturing a fibre-reinforced pressure vessel comprising one of a rigid gas- or fluid-tight body overwound with fibre filaments, whereby the method comprises the steps of:

a) providing one of a rigid gas- or fluid-tight body and, fibre filaments ~~and a winding apparatus;~~

b) overwinding the ~~rigid body~~ with the fibre filaments such that the fibre filaments ~~can move freely with respect to one another and the fibre filaments are wound such that when the pressure vessel is under internal pressure the fibre filaments are loaded exactly in their longitudinal direction and the rigid body does not substantially contribute to the absorption of mechanical stresses resulting from the internal pressure;~~ and

whereby no matrix material preventing movement of the fibre filaments relative to one another is provided or at least a portion of the pressure vessel.

20. (Previously Submitted) The fibre-reinforced pressure vessel according to claim 1,

wherein the pressure vessel includes opposite end portions with isotenoid-shaped continuous surfaces and a cylindrical portion connecting said isotenoid end portions, said fibre filaments being wound circumferentially on said cylindrical portion and longitudinally on said end portions.

21. (Previously Submitted) The method of manufacturing according to claim 19, comprising forming the rigid-body with end portions constituted by reinforcing members with isotenoid surfaces of unidirectional curvature.

22. (Previously Submitted) The fibre-reinforced pressure vessel according to claim 1, wherein the rigid-body has exclusively a positive curvature.

23. (Currently Amended) A fibre-reinforced pressure vessel comprising:
one of a rigid gas- or fluid-tight body; and
fibre filaments overwinding the body, the fibre-reinforced pressure vessel having no matrix material preventing movement of the fibre filaments with respect to one another, the fibre filaments being arranged over the body such that when the pressure vessel is under internal pressure the fibre filaments~~elements~~ support substantially all mechanical stresses resulting from the internal pressure.

24. (Cancelled)

25. (New) The fibre reinforced pressure vessel according to claim 1, further comprising a protective layer on top of the fibre filaments.

26. (New) The fibre reinforced pressure vessel according to claim 25, wherein the protective layer comprises elastic material.

27. (New) The fibre reinforced pressure vessel according to claim 26, wherein the elastic material comprises synthetic rubber.